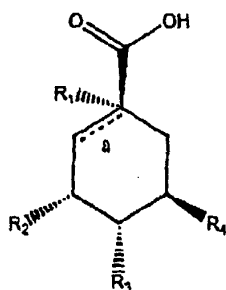


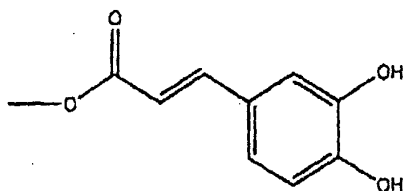
# Claims

1. A preparation for stimulating or enhancing an immune system comprising one or more agents that stimulate T-lymphocytes *in vivo*.
2. A preparation according to claim 1, wherein the one or more agents that stimulate T-lymphocytes *in vivo* comprise chlorogenic acid and/or one or more functional analogs thereof.
3. A preparation according to claim 2, wherein said functional analog is selected from the group of chlorogenic acid, 4-caffeoylquinic acid, 5-caffeoylquinic acid and 1,5-dicaffeoylquinic acid, an isochlorogenic acid, 3,4,5 tricaffeoyl quinic acid, 1-O-caffeoylquinic acid, 1,3-O-caffeoylquinic acid, 1,3,4,5-O-tetracaffeoylquinic acid or 5-O-caffeoylshikimic acid.
4. A preparation according to claim 1, wherein said agent is a compound represented by formula 1,



(Formula 1)

wherein "a" represents either a single bond or a double bond, and R<sub>1</sub> is only present in case "a" represents a single bond, and wherein at least one of the functional groups R<sub>1</sub>-R<sub>4</sub> represents a single bond, and wherein at least one of the functional groups R<sub>1</sub>-R<sub>4</sub> represents a functional group represented by formula 2



(Formula 2)

and the remaining of said functional groups R<sub>1</sub>-R<sub>4</sub> are independently chosen from the group formed by -OH and caffeic acid analogs abundant in a material of a vegetable nature.

5 5. A preparation according to claim 2, wherein said chlorogenic acid and/or a functional analog thereof originates from one or more plants.

6. A preparation according to claim 5, wherein the extracts have been taken from the group of *Echinacea sp.*, *Panax Ginseng*, green coffee bean, green cacao bean, hawthorn, green tea, elder tree, artichoke, guerana, butterbur, Phoenix spp, *Butia capitata*, Dandelion, a  
10 dicotylus *Compositae* or orhter dicotylus, *Arnica montana*, Birch tree or combinations thereof.

7. A preparation according to claim 1, further comprising one or more agents capable of inducing the production of interferon-gamma.

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8. A preparation according to claim 7, wherein said one or more agents are chosen from the group formed by N-acetylcysteine, polysaccharides and zinc.

9. A preparation according to claim 1, comprising one or more arabinogalactans from  
20 *Baptisa tinctoria*, *Echinacea* species, *Larix occidentalis*, *Angelica acutiloba* and/or other polysaccharides from *Echinacea* species, *Thuja occidentalis*, *Panax ginseng*, *Flammulina velupites*, *Arnica montana*, *Plantago spp*, *Achyrocline satureioides*, *Aconitum officinalis*, *Angelica acutiloba*, *Aristolochia officinalis*, *Astralagus gummerifa*, *A. membranaceus*, *A. mongholicus*, *Avena sativa*, *Bambusa vulgaris*, *Baptisia tinctoria*, *Bryonia dioica*,  
25 *Calendula officinalis*, *Carthamus tinctorius*, *Chamomilla recutita*, *Echinacea angustifolia*, *E. pallida*, *E. purpurea*, *Eleutherococcus senticosus*, *Eupatorium cannabinum*, *Silene vulgaris*, *Triticum sativum*, *Vincetoxicum officinalis*, *Viscum album*.

10. A preparation according to claim 1 comprising one or more additives selected from the group of a ginsenoside, a beta glucan, an antioxidant, a trace element, lipoic acid, L-carnitine, a mineral, a vitamin, an immuno-stimulant, an anti-tumor agent and *Astragalus membranaceus* extract.

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11. A preparation according to claim 10, wherein the antioxidant is chosen from the group of ascorbic acid,  $\alpha$ -tocopherol, or a combination thereof.

12. A preparation according to claim 10, wherein the trace element is chosen from the group of manganese ions, copper ions, selenium ions, selenium compounds or a combination thereof.

13. A preparation according to claim 1 comprising: 10-200 mg chlorogenic acid and/or functional analogs thereof, 50-2000 mg N-acetylcystein, 200-2000 mg *Echinacea premium*, 0.2-150 mg ginsenosides, 2-200 mg beta glucans, 10-1000 mg ascorbic acid, 1-1000 mg  $\alpha$ -tocopherol, 1-200 mg zinc, 0.1-20 mg copper, 0.005-0.3 mg selenium, 1-100 mg lipoic acid, 10-2000 mg L-carnitine, and/or *Astragalus membranaceus* extract of 200-20,000 mg dry material.

14. A preparation according to claim 1 in the form of a capsule, a tablet, a lozenge, a powder, an agglomerate, a paste, a solution, a liquid, a gel, an emulsion, a suspension, a bar, a drink, a pudding, an ice cream, or a sauce.

15. A preparation comprising chlorogenic acid and/or a functional analog thereof further comprising N-acetylcystein, for medical use.

16. A preparation according to claim 1 in a pharmaceutical, drink or food product.

17. A preparation according to claim 1 for use in treatment and/or prophylaxis of cancer, infection by a parasite, a toxin, a virus, and/or a bacterium.

18. A preparation according to claim 17 for use in treatment and/or prophylaxis of an infection by an infectant selected from the group of *Pox-viridae*, *Herpes-viridae*, *Adenoviridae*, *Papavoviridae*, *Hepadnaviridae*, *Parvoviridae*, *Reo-viridae*, *Picornaviridae*, *Toga-viridae*, *Flavi-viridae*, *Corona-viridae*, *Rhabdo-viridae*, *Paramyxo-viridae*, *Orthomixoviridae*, *Filo-viridae*, *Bunya-viridae*, *Arena-viridae*, *Calici-viridae*, *Retroviridae*, *Papilloma*, influenza, HIV, HTLV, Corona, Epstein Barr, *pneumococcus*, *staphylococcus aureus* and/or combinations thereof.
19. A method for stimulating T-lymphocytes by administration of a preparation according to claim 1.
20. A method according to claim 19, wherein the method is part of a prophylactic or treatment protocol for cancer.
21. The use of a preparation according to claim 1 for the manufacture of a product for stimulating T-lymphocytes.
22. A vaccine comprising chlorogenic acid or a functional analog thereof as adjuvant.
23. The use of chlorogenic acid or a functional analog thereof as an adjuvant in a vaccine.